

Titel:

Evaluation of a novel gas sensor for detecting disinfectants in a simulated incubator environment

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Abstract:

Olfactory cues play a crucial role in early human development due to their involvement in essential processes like parent-child bonding or breastfeeding. Neonates with the need for clinical care are confronted with an olfactory environment which differs substantially from that of healthy children: The close contact to the mother is interrupted and natural olfactory signals are replaced or interfere with disinfectants and other chemical substances. These exposures have been linked to stress responses that could negatively affect the infants' neurological development. Nevertheless, monitoring of the olfactory environment within incubators is not part of the clinical routine care so far.

To address that, this study evaluates the capabilities of a novel gas detection device called "SmellInspector" for detecting disinfectants in a simulated incubator environment and assess the feasibility of in-situ deployment of olfactory sensory.